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PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Mohan R. Duggi, et al.
Serial No. : 10/764,130
Filed : January 23, 2004
For : APPARATUS AND METHOD FOR TRANSPARENT
LAYER 2 ROUTING IN A MOBILE AD HOC NETWORK
Group No. : 2617
Examiner : Christopher M. Brandt
Confirmation No. : 6103

MAIL STOP AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants respectfully request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal. The review is requested for the reason(s) stated in the arguments below, demonstrating the clear legal and factual deficiency of the rejections of some or all claims.

I. STATUS OF THE CLAIMS

Claims 1-20 are pending and stand rejected.

II. CLAIM REJECTION UNDER 35 U.S.C. § 103

Claims 1-20 were rejected under 35U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,292,838 B1 to *Nelson*, hereinafter “Nelson” in view of U.S. Patent Application Publication No. 2002/0039357 A1 to *Lipasti*, hereinafter “Lipasti” in view of U.S. Patent Application Publication No. 2003/0212821 A1 to *Gillies, et al*, hereinafter “Gillies” and further in view of U.S. Patent No. 6,985,476 B1 to *Elliott, et al*, hereinafter “Elliott”.

Applicants respectfully submit that the Examiner’s rejection is legally deficient. Specifically, Applicants respectfully submit that the combination of cited references fails to teach or suggest all the claim limitations of independent Claim 1. For example, Claim 1 recites, “implementing, with a MANET Routing Protocol module, a MANET routing protocol at a medium access control (MAC) layer by, at the MAC layer, (i) intercepting a first data packet associated with at least one of the incoming data packet and the outgoing data packet, (ii) determining a first MAC layer address associated with said first data packet, and (iii) adding said first MAC layer address to said first data packet.”

- Lipasti teaches away from implementing a MANET routing protocol at a MAC layer.

The Examiner correctly notes that Nelson fails to teach a mobile ad hoc network (MANET). (Office Action dated May 18, 2009, page 4.) The Examiner also correctly notes that Nelson and Lipasti fail to disclose implementing a MANET routing protocol at a MAC layer. (Office Action dated May 18, 2009, page 4.) However, Applicants respectfully submit that Lipasti not only fails to disclose implementing a MANET routing protocol at a MAC layer but also teaches away from implementing a MANET routing protocol at a MAC layer. For example, Paragraph [0027] of Lipasti states:

[0027] Specific routing addresses besides IP addresses can be used for

addressing and routing in mobile ad hoc networks, for example in the Bluetooth scatternets. This is especially useful when sending a packet to an IP address since the layer 2.5 destination routing address can be directly deduced from the IP destination address, i.e. no MAC address inquiry using ARP requests is necessary. (Emphasis added by Applicants.)

The Examiner responds to this assertion by stating that Lipasti was not relied upon to show a MANET routing protocol at a MAC layer. (Advisory Action dated July 29, 2009, page 2.) However, Applicants respectfully submit that it is impermissible within the framework of § 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. *In re Hedges*, 228 U.S.P.Q. 685, 687 (Fed. Cir. 1986). A reference may be said to “teach away” from the claimed invention when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2D 1130, 1131 (Fed. Cir. 1995).

Thus, when examined as a whole, Lipasti teaches away from a routing protocol at a MAC layer by deducing a routing address directly from the IP destination address to avoid a MAC address inquiry. Therefore, one of ordinary skill in the art would be discouraged from implementing a MANET routing protocol at a MAC layer upon reading Lipasti and, therefore, would be discouraged from making the changes proposed by the Examiner.

- Simply using routing addresses that are composed from data link layer Medium Access Control MAC addresses does not teach or suggest a MANET routing protocol at a medium access control (MAC) layer.

The Examiner also suggests that Paragraph [0026] of Lipasti teaches special routing addresses that are composed from network layer addresses or from unique mobile node device identifiers (typically data link layer Medium Access Control MAC addresses) and used for routing

packets inside a mobile ad hoc network. (Advisory Action dated July 29, 2009, page 2.) However, simply using routing addresses that are composed from data link layer Medium Access Control MAC addresses does not teach or suggest a MANET routing protocol at a medium access control (MAC) layer.

- Gillies merely provides a short list of “other protocols”, including RIP, ISIS and LonWorks, BACNet, and FieldBus, that the virtual MAC layer can carry. However, not only does Gillies not disclose that the other protocols could be a MANET protocol, Gillies contains no disclosure as to how this would be accomplished.

Although the Examiner concedes that Nelson and Lipasti do not disclose a controller implementing “a MANET routing protocol at a medium access control (MAC) layer” as set forth in Claim 1, the Examiner, nonetheless, rejects independent Claim 1 contending that Gillies provides the necessary disclosure. (Office Action dated May 18, 2009, page 4.) The Examiner tries to suggest that Paragraphs [0048] and [0066] of Gillies teaches a virtual MAC layer that is configured to carry other routing protocols. (Office Action dated May 18, 2009, page 4.)

However, Applicants respectfully submit that Gillies merely provides a short list of “other protocols”, including RIP, ISIS and LonWorks, BACNet, and FieldBus, that the virtual MAC layer can carry. Gillies does not disclose that the other protocols could be a MANET protocol. Furthermore, Gillies contains no disclosure as to how to implement a MANET protocol at the MAC layer.

Accordingly, Applicants respectfully submit that Nelson, Lipasti and Gillies, taken singularly or in combination, do not teach or suggest a MANET Routing Protocol module such that the controller is capable of implementing, with a MANET Routing Protocol module, a MANET routing protocol at a medium access control (MAC) layer as recited by Claim 1. Therefore, Applicants respectfully submit that the Examiner’s rejection of Claim 1 is legally deficient and that independent Claim 1 is patentable over the cited references.

Independent Claim 11 recites limitations analogous to the novel limitations emphasized above in traversing the rejection of Claim 1 and, therefore, also is patentable over the cited references. Additionally, Claims 2-10 and 12-20 depend from Claims 1 and 11, respectively, and include all the limitations of their respective base claims. As such, Claims 2-10 and 12-20 also are patentable over the cited references.

Accordingly, for all of the reasons established above, Applicants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness with regard to Claims 1-20.

III. CONCLUSION

As a result of the foregoing, Applicant asserts that the remaining Claims in the Application are in condition for allowance, and respectfully requests an early allowance of such Claims.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *jmockler@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK CARTER, LLP

Date:

Aug. 13, 2009



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